

ABSTRACT OF THE DISCLOSURE

A portable composite communication terminal for voice communication and image transmission and reception, and an operation method and communication system thereof. The communication system includes a portable composite communication terminal, a mobile communication network, and a server. The portable composite communication terminal has a camera unit for digitally capturing the image of an object, constructing the image in a predetermined format, compressing the formatted image, and storing the compressed image in the camera memory under a predetermined camera control, a portable phone unit for providing overall control to the mobile visible phone and selectively performing voice communication and image transmission and reception according to a selected transmission mode among predetermined modes, a display for displaying images and characters under the control of the portable phone unit, and an interface unit for interfacing between the portable phone unit and the display to display images and characters on the display under the control of the portable phone unit. The mobile communication network transmits and receives voice and images to and from the portable composite communication terminal. The server is connected to the mobile communication network and provides transmission and reception service of image data over the mobile communication network.